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| Collana                 | Programming and Software Engineering ; ; 8734  |
| Disciplina              | 004.0151   |
| Soggetti                | Software engineering<br>Algorithms<br>Computer logic<br>Computer programming<br>Programming languages (Electronic computers)<br>Mathematical logic<br>Software Engineering<br>Algorithm Analysis and Problem Complexity<br>Logics and Meanings of Programs<br>Programming Techniques<br>Programming Languages, Compilers, Interpreters<br>Mathematical Logic and Formal Languages  |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | Bibliographic Level Mode of Issuance: Monograph  |
| Nota di bibliografia    | Includes bibliographical references and index.   |
| Nota di contenuto       | First International Competition on Software for Runtime Verification -- Monitoring and Trace Slicing -- Multiple Ways to Fail: Generalizing a Monitor's Verdict for the Classification of Execution Traces -- Scalable Offline Monitoring -- Monitoring Systems with Extended Live Sequence Charts -- Foundations of Boolean Stream Runtime Verification -- Portable Runtime Verification with Smartphones and Optical Codes -- Robust Consistency Checking for Modern Filesystems -- Runtime Verification of Distributed and Concurrent Systems -- On the Number of Opinions Needed for Fault-Tolerant Run-Time Monitoring in |

Distributed Systems -- Supporting the Specification and Runtime Validation of Asynchronous Calling Patterns in Reactive Systems -- Speculative Program Parallelization with Scalable and Decentralized Runtime Verification -- Organising LTL Monitors over Distributed Systems with a Global Clock -- Dynamic Verification for Hybrid Concurrent Programming Models -- Abstraction and Mining of Traces to Explain Concurrency Bugs -- Runtime Verification of Real-Time and Embedded Systems -- Online Monitoring of Metric Temporal Logic -- On Real-Time Monitoring with Imprecise Timestamps -- ModelPlex: Verified Runtime Validation of Verified Cyber-Physical System Models -- Runtime Observer Pairs and Bayesian Network Reasoners On-board FPGAs: Flight-Certifiable System Health Management for Embedded Systems -- On-Line Monitoring for Temporal Logic Robustness -- ROSRV: Runtime Verification for Robots -- Testing and Bug Finding -- Symbolic Execution Debugger (SED) -- Checking Data Structure Properties Orders of Magnitude Faster -- Dynamic Test Generation with Static Fields and Initializers -- RV-Monitor: Efficient Parametric Runtime Verification with Simultaneous Properties -- Inference and Learning -- Improving Dynamic Inference with Variable Dependence Graph -- The TTT Algorithm: A Redundancy-Free Approach to Active Automata Learning -- Lazy Symbolic Execution for Enhanced Learning -- Faster Statistical Model Checking by Means of Abstraction and Learning.

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Sommario/riassunto

This book constitutes the refereed proceedings of the 5th International Conference on Runtime Verification, RV 2014, held in Toronto, ON, Canada in September 2014. The 28 revised full papers presented together with 2 tool papers, and 8 short papers were carefully reviewed and selected from 70 submissions. The scope of the conference was on following topics: monitoring and trace slicing, runtime verification of distributed and concurrent systems, runtime Verification of real-time and embedded systems, testing and bug finding, and inference and learning.

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